

CLAIMS

We claim:

1. A dental curing light for use in photo curing light-curable dental compounds, comprising:

a handle portion;

an extension portion extending at least approximately along a second longitudinal axis, the extension portion being positioned in at least one conformation relative to the handle portion so that the second longitudinal axis is laterally offset by a predetermined angle relative to the first longitudinal axis; and

a light source disposed on a side of the extension portion so that light is emitted laterally from the extension portion when the curing light is in use,

wherein the predetermined angle is selected to facilitate placement of the light source near at least one tooth to be treated.

2. A dental curing light as defined in claim 1, wherein the handle portion and extension portion are configured so as to approximate the size and shape of a standard dental hand piece.

3. A dental curing light as defined in claim 1, wherein the handle portion is substantially linear.

4. A dental curing light as defined in claim 3, the handle portion further comprising one or more controls on a top surface of the handle portion.

5. A dental curing light as defined in claim 4, wherein a portion of a bottom surface of the handle portion is curved so as to provide a comfortable grip.

6. A dental curing light as defined in claim 1, wherein the extension portion is substantially linear.

7. A dental curing light as defined in claim 1, wherein the predetermined angle approximates the contra angle of a standard dental hand piece.

8. A dental curing light as defined in claim 7, wherein the predetermined angle is about 17.5°.

9. A dental curing light as defined in claim 7, wherein the light source is positioned so as to emit light approximately perpendicular to the extension portion.

10. A dental curing light as defined in claim 1, wherein the extension portion is movable relative to the handle portion in order to selectively position the extension portion in one of a plurality of different conformations relative to the handle portion in order to alter the predetermined angle.

11. A dental curing light as defined in claim 10, wherein the extension portion is positionable in at least one conformation relative to the handle portion in order for the light source to emit light at an obtuse angle relative to the first longitudinal axis.

12. A dental curing light as defined in claim 10, wherein the extension portion is positionable in at least one conformation relative to the handle portion in order for the light source to emit light at an acute angle relative to the first longitudinal axis.

13. A dental curing light as defined in claim 10, wherein the extension portion is laterally adjustable relative to the handle portion.

14. A dental curing light as defined in claim 10, wherein the extension portion is rotatably adjustable relative to the handle portion.

15. A dental curing light as defined in claim 14, the dental curing light further comprising rotation restraint means for maintaining the extension portion at a desired rotational angle relative to the handle portion during use.

16. A dental curing light as defined in claim 15, the rotation restraint means comprising at least one of a mechanical locking device, one or more locking pins that fit into one or more corresponding recesses, or a friction fit.

17. A dental curing light as defined in claim 1, the light source comprising at least one LED or LED array.

18. A dental curing light for use in photo curing light-curable dental compounds, comprising:

a handle portion extending at least approximately along a first longitudinal axis;

an extension portion extending at least approximately along a second longitudinal axis, the extension portion being positioned in at least two conformations relative to the handle portion so that the second longitudinal axis is laterally offset by a predetermined angle relative to the first longitudinal axis; and

a light source disposed on a side of the extension portion so that light is emitted laterally from the extension portion when the curing light is in use,

the extension portion being positionable in at least one conformation relative to the handle portion in order for the light source to emit light at an obtuse angle relative to the handle portion when in use that approximates the contra angle of a standard dental hand piece.

19. A dental curing light as defined in claim 18, the extension portion being positionable in at least one conformation relative to the handle portion in order for the light source to emit light at an acute angle relative to the handle portion.

20. A dental curing light as defined in claim 19, the light source comprising at least one LED or LED array.

21. A dental curing light for use in photo curing light-curable dental compounds, comprising:

a handle portion extending at least approximately along a first longitudinal axis;

an extension portion extending at least approximately along a second longitudinal axis, the extension portion being fixedly positioned relative to the handle portion so that the second longitudinal axis is laterally offset by a predetermined angle relative to the first longitudinal axis; and

a light source disposed on a side of the extension portion so that light is emitted laterally from the extension portion when the curing light is in use,

the extension portion being positioned relative to the handle portion in order for the light source to emit light at an obtuse angle relative to the handle portion when in use.

22. A dental curing light as defined in claim 21, wherein the light source emits light at an angle that approximates the contra angle of a standard dental hand piece when in use.

23. A dental curing light as defined in claim 21, the light source comprising at least one LED or LED array.

24. A dental curing light for use in photo curing light-curable dental compounds, comprising:

a handle portion extending at least approximately along a first longitudinal axis;

an extension portion extending at least approximately along a second longitudinal axis and being rotatably connected to the handle portion in a manner so that the extension portion can be selectively rotated relative to the handle portion without being completely detached from the handle portion;

a light source disposed at an end of the extension portion distal to the handle portion and positioned so that the light source emits light laterally relative to the extension portion when in use; and

rotation restraint means for maintaining the extension portion at a desired rotational angle relative to the handle portion during use.

25. A dental curing light as defined in claim 24, wherein the second longitudinal axis is laterally offset by a predetermined angle relative to the first longitudinal axis.

26. A dental curing light as defined in claim 25, wherein the predetermined angle approximates the contra angle of a standard dental hand piece when the extension portion is selectively rotated into at least one angle of rotation relative to the handle portion.

27. A dental curing light as defined in claim 24, wherein the second longitudinal axis is substantially parallel to the first longitudinal axis.